Remarks

Applicants appreciate the withdrawal of the rejection of claims 28-32 and 51-60 under 35 U.S.C. § 112, second paragraph, the rejection of claims 28-32, 51, 53, and 56 under 35 U.S.C. § 102(b), the rejection of 28-32, 51-53, 56, 58, and 60 under 35 U.S.C. § 103(a), and the obviousness-type double patenting rejection of claims 28-32 and 51-60.

The Rejection of Claims 28, 29, 31, 32, 51, and 53 Under 35 U.S.C. § 102(b)

Claims 28, 29, 31, 32, 51, and 53 stand rejected under 35 U.S.C. § 102(b) as anticipated by Dal Porto *et al.*, *Proc. Natl. Acad. Sci. USA 90*, 6671-75, 1993 ("Dal Porto"). Applicants respectfully traverse the rejection.

To reject a claim as anticipated, each and every element as set forth in the claim must be either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d (BNA) 1051, 1053 (Fed. Cir. 1987). Independent claim 28 is directed to a composition comprising a cell in which a molecular complex is bound to the surface of the cell. The recited molecular complex comprises *inter alia* two second fusion proteins, each of which comprises an immunoglobulin light chain and an extracellular portion of a second transmembrane polypeptide. Dal Porto does not disclose this element of the recited molecular complex.

Dal Porto teaches soluble divalent class I MHC molecules. As noted in the Office Action, the general structure of these molecules is shown on page 6672 in Figure 1B. Dal Porto also teaches a particular soluble divalent class I MHC molecule called "H-2K^b/IgG." Page 6672, column 1, first paragraph. As Dal Porto explains, H-2K^b/IgG contains three components: "The

native conformation of H-2K^b/IgG consists of dimers of a complex composed of chimeric heavy chain, immunoglobulin light chain, and β2-microglobulin (Fig. 1*B*)." Page 6673, column 2, first full paragraph. None of these three components is a fusion protein comprising an immunoglobulin light chain and an extracellular portion of a transmembrane polypeptide.

The only fusion protein present in the soluble divalent class I MHC molecules of Dal Porto is the "chimeric heavy chain"; this fusion protein contains no light chain components. See page 6672, column 1, fifth paragraph:

> The chimeric MHC/IgG protein consists of the signal sequence and the first four amino acids from IgG1 heavy chain, followed by a His-Ala-Ser spacer (generated by the *Mlu* I site) and the extracellular domains (α1-α3) of H-2K^b (Fig. 1*A*). The extracellular portion of H-2K^b was joined by a Leu-Glu-Val-Ser spacer (generated by the *Xho* I site) to the intact variable (V) region, starting again from the first amino acid residue.

The H-2K^b/IgG molecule was produced by transfecting a cell line that expresses an immunoglobulin light chain but no endogenous immunoglobulin heavy chain with DNA encoding the chimeric heavy chain and DNA encoding β2-microglobulin. Page 6672, column 1, fourth paragraph. Neither the immunoglobulin light chain of Dal Porto's H-2K^b/IgG nor the β2-microglobulin component is a fusion protein.

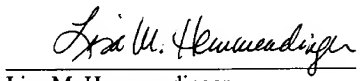
The immunoglobulin light chain component of Dal Porto's divalent molecules is simply a native immunoglobulin light chain. In contrast, the immunoglobulin light chain in the recited molecular complex is present in a fusion protein together with an extracellular portion of a transmembrane polypeptide. This difference between Dal Porto's soluble divalent class I MHC molecule and the molecular complex recited in independent claim 28 is apparent if Figure 1B of Dal Porto and Figure 1C of the present application are compared.

Dal Porto does not teach the second fusion protein recited in independent claim 28. Thus, Dal Porto does not anticipate independent claim 28 or dependent claims 29, 31, 32, 51, and 53. Applicants respectfully request withdrawal of the rejection.

Respectfully submitted,

BANNER & WITCOFF, LTD

Date: January 12, 2004

By: 

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